



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,675	10/29/2003	Bernard Bon	A34252-I - 070337.0358	5043
27215	7590	03/09/2006	EXAMINER	
MICHELIN NORTH AMERICA, INC.			VO, HAI	
515 MICHELIN ROAD			ART UNIT	
P.O. BOX 2026			PAPER NUMBER	
GREENVILLE, SC 29602			1771	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/695,675

Applicant(s)

BON, BERNARD

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-15 and 17-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-15 and 17-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1771

1. The 102 art rejections over Babinec et al (US 6,380,294) are withdrawn and changed to 103 rejections in view of the present amendment. Babinec does not teach a cross-linkable, expandable blank comprising water in an amount of from 3 to 6 phr.
2. The 103 art rejections over Babinec are maintained.

***Claim Objections***

3. Claims 9, 14, 15, and 21-23 are objected to because of the following informalities: The claims contain improper Markush Group. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7-9, and 23-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language of the claims appears to be grammatically ambiguous because it is not clear how a cross-linkable, expandable resin composition could have a cellular structure with closed cells.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7-15, and 17-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Babinec et al (US 6,380,294). Babinec discloses a cross-linkable, expandable resin composition suitable for use as a tire comprising a random interpolymers of isobutylene and paramethylstyrene containing 0.5 to 20 mole % paramethylstyrene within the claimed range (column 9, lines 1-5, and column 25, lines 34-35), and a blowing agent such as azobisformamide in an amount of 0.2 to 5 gmoles per kg of polymer or 2.32 to 58.05% by weight based on 100% by weight of polymer (1 mole of azobisformamide is equivalent to 116.10 g) (column 23, line 40 and column 24, lines 10-15). Babinec discloses the foam structure made from the resin composition having a closed cell content of 80% or more (column 26, lines 45-46). The resin composition includes carbon black and silica in an amount of 0.1 to 35 % by weight based on 100% by weight of the polymer (column 20, lines 28 and 55-60). The tire is capable of being mounted on the wheel rim. Babinec teaches the discrete resin particles suspended in water (column 25, lines 35-40). Babinec discloses the beads being heated with steam to effect coalescing and welding of the beads to foam the article (column 23, lines 15-27). Babinec does not specifically disclose the amount of water being used. Since the water amount is recognized as a result-effective variable, differences in water amount will not support the patentability of

Art Unit: 1771

subject matter encompassed by the prior art unless there is evidence indicating such particle size is critical or provides unexpected results. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the water in the range instantly claimed motivated by the desire to effect coalescing and welding of the beads to foam the article.

Babinec does not specifically disclose the steps of making a closed cell foam structure. However, they are product-by-process limitations not as yet shown to produce a patentably distinct article. It is the examiner's position that the tire of Babinec is identical to or only slightly different than the claimed article prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity as discussed above. Even though product-claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with

the claims and how the Comparative Examples are commensurate in scope with the tire of Babinec.

8. Claims 7, 8, 10-13, 17-20, and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/37517. US 6,559,234 issued to Arai et al will be relied on as an equivalent form of WO 00/37517 for convenience. Arai discloses a cross-linkable, expandable resin composition comprising a olefin/styrene/diene copolymer having a molar ratio of diene units of 0.001 mole % to 0.5 mol % (column 10, lines 43-45), a blowing agent such as azobisformamide (column 35, lines 44-45). Arai discloses the foam structure made from the resin composition having a closed cell (column 36, lines 1-2). The resin composition includes carbon black and silica in an amount of 25 to 75 % by weight and from 75 to 25% by weight of the polymer (column 31, lines 54-56). Arai discloses the polymerization solution being introduced into 300 l of water (column 44, lines 59-60). Arai does not specifically disclose the amount of water in the range instantly claimed. Since the water amount is recognized as a result-effective variable, differences in water amount will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such particle size is critical or provides unexpected results. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the water in the range instantly claimed because water is a required component of the polymerization process.

Arai does not specifically disclose the amount of blowing agent in the range instantly claimed. However, Arai teaches the amount of the blowing agent is not particularly limited and is determined by the physical properties of the desired foamed product (column 35, lines 60-62). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the blowing agent in the range instantly claimed motivated by the desire to impart physical properties of the desired foam product.

Arai does not specifically disclose the steps of making a closed cell foam structure. However, they are product-by-process limitations not as yet shown to produce a patentably distinct article. It is the examiner's position that the resin composition of Arai is identical to or only slightly different than the claimed article prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity as discussed above. Even though product-claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a

submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the resin composition of Arai.

Arai does not specifically disclose the cross copolymer being capable of being mounted on a wheel rim. However, a support arranged on the wheel rim on the inside of tires for vehicles is intended to resist, upon a drop in inflation pressure, the crushing of the tire which might result in damage to it and interfere with the maneuverability of the vehicle. Since Arai teaches the cross copolymer having certain degree of stiffness and flexibility at the same time (column 7, lines 20-22), it is the examiner's position that such properties would make the cross-copolymer suitable as a support mounted on a wheel rim.

9. Claims 9, 14, 15, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/37517 as applied to claims 7, 8, 10 and 11 above, further in view of Konishi et al (US 6,030,255). Arai does not specifically disclose the diene being a copolymer of isobutylene and isoprene. Kohishi, however, teaches a gasket made from a blend of a thermoplastic norbornene resin, a polyolefin and a diene wherein the diene is made from a copolymer of isobutylene and isoprene (column 5, lines 63-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the copolymer of isobutylene and isoprene as the diene of Arai motivated



by the desire to improve impact resistance of the Arai gasket product (see Konishi, column 5, lines 32-35).

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Friday, from 6:00 to 2:30.

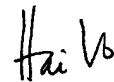
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax

Art Unit: 1771

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV



**HAIVO  
PRIMARY EXAMINER**